

Remarks/Arguments

Reconsideration of this application is requested.

Claim Status

Claims 1-20 were previously presented. Claims 5-7, which are withdrawn from consideration as a result of the previous restriction requirement and election, are canceled without prejudice. Claims 1-3, 8-10 and 17 are amended. Thus, claims 1-4 and 8-20 are now pending.

Claim Rejections – 35 USC 102

Claims 1-3, 8, 9, 11-18 and 20 are rejected under 35 USC 102(e) as anticipated by Kihl et al. (US 6,222,536). In response, independent claims 1, 2, 8 and 17 are amended to clearly distinguish over Kihl.

The present invention addresses the difficulty of establishing connections between PCs (network devices) in mutually different LANs. This stems from the difficulty of establishing a connection from the Internet to PCs within a LAN. As described at paragraph [0006] of applicant's specification, when connecting to PCs within a LAN from the Internet, conversion from a global IP address of a router to a private IP address within the LAN, proper setting of a firewall or PC, or the like is typically required.

In the present invention, by contrast, a connection to a PC with a LAN may be established without requiring any special setting on the network side. A first network device in a first LAN establishes a first connection with a relay server, and the first network device and relay server hold the first connection and, in the same way, a second network device in a second LAN establishes a second connection with a relay server, and the second network device and relay server hold the second connection. Information is relayed between the first and second network devices by the relay server combining the held connections with the two devices. Independent claims 1, 2, 8 and 17 are amended to emphasize this distinctive features. Claim 1, for example, now recites:

communicating means for communicating with a plurality of network devices, including a first network device in a first local area network (LAN) and a second network device in a second LAN; and

connection information holding means for holding connection information of a first connection between the relay server and the first network device and a second connection between the relay server and the second network device,

wherein the communicating means carries out communication between the first and second network devices by using the first and second connections, and relays data between the first and second network devices in accordance with connection demand information generated from one of the first and second network devices.

Claims 2, 8 and 17 are amended to include similar recitations.

Kihl is directed to a virtual banking relay server system 12 that relays messages between subscriber terminals 11 and bank systems 13. There is no teaching or suggestion in Kihl, however, that subscriber terminals 11 and bank systems 13 are in mutually different LANs, or that relay server system 12 relays data between terminals 11 and systems 13 by combining separate connections that have been established and held between system 12 and terminals 11, and system 12 and systems 13.

Since Kihl does not teach each and every element of claims 1, 2, 8 and 17, it cannot anticipate those claims or claims dependent thereon. The rejections under 35 USC 102(e) should be withdrawn.

Claim Rejections – 35 USC 103

Claims 4, 10 and 19 are rejected under 35 USC 103(a) as obvious over Kihl in view of Zakurdaev et al. (US 2002/0073182). The Action cites Zakurdaev as disclosing the connection of a network device to a relay server via a gateway device having an address converting function. However, Zakurdaev does not remedy the

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deficiencies of Kihl, as discussed above. It does not disclose or suggest the use of a relay server to relay data between terminals in mutually different LANS by establishing an holding connections between the relay server and the terminals in the different LANs, and then combining the connections to relay the data.


Since Kihl and Zakurdaev do not teach each and every element of claims 1, 2, 8 and 17, it cannot render those claims obvious. The rejections under 35 USC 103(a) should be withdrawn.

Conclusion

This application is now believed to be in condition for allowance. The Examiner is invited to telephone the undersigned to resolve any issues that remain after entry of this amendment. Any fees due with this response may be charged to our Deposit Account No. 50-1314.

Respectfully submitted,
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